ABSTRACT

Cloud computing technology is a computing model / computing, where resources such as processor / computing power, storage, network, and software become abstract and provided as a service on the network / internet with remote access pattern. Many companies began to take advantage of this opportunity by offering a variety of services in which both computational resources software, platform, and infrastructure, virtualized and accessed as a service on the internet. Besides commercialize these services, several companies and vendors operating system publishing open source system and a common platform that can be used to build the cloud computing. Some of them are the Ubuntu Enterprise Cloud (UEC) and Proxmox VE.

In this final project will be implemented Infrastructure As A Service cloud computing by using the UEC and also Proxmox VE. From both the cloud computing software developer, will be analyzed on the performance of both if the implementation will be built VoIP server in the cloud computing infrastructure.

From the result of taking the measurements it can be concluded that the UEC performance is better than Proxmox, it can be seen from the value of the CPU usage and memory usage UEC both servers. Both UEC and proxmox having highest CPU usage when running 2 instances, their respective values 14.4% and 207%. Memory usage of proxmox is also higher than UEC where proxmox reach 1416 MB, while UEC the maximum value is 1170 MB. QoS measurement results obtained on the maximum delay value proxmox instance 21.737 ms and UEC instance 20.42 ms. Both are well categorized according to the ITU-T. The maximum jitter of UEC instance is 1.14 ms whereas proxmox instance has maximum jitter value 1.529 ms. Both of these values good categorized according to Tiphon standard. Maximum packet loss values instance UEC and proxmox respectively 1,818% and 1,825%.

Keyword : *Cloud computing, IaaS, UEC, Proxmox VE, VoIP*.